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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,081	07/10/2001	Ashwani Chhibber	02581-P0392A	7798

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EXAMINER

MULCAHY, JOHN M

ART UNIT	PAPER NUMBER
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3739

DATE MAILED: 09/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/902,081

Applicant(s)

CHHIBBER ET AL.

Examiner

John M. Mulcahy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 103***

2. Claims 1-5, 7-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimonaka (JP 55-81317) in view of Barthel et al. (5,921,917).

Shimonaka (JP 55-81317) shows an endoscopic intubation system comprising:

As to claim 1: an endotracheal tube 1 having an inner diameter; an endoscope, comprising: a shaft 4 having a proximal (top end in Fig. 1) and a distal end (bottom end in Fig. 1), said shaft being substantially rigid (described as "hard" in English abstract) and having an outer diameter slightly smaller than said inner diameter of said tube (Fig. 1), so that said tube can be slid onto said shaft (Fig. 1), said shaft being at least partially curved (Fig. 1), and said shaft having a continuously curved portion extending from said distal end along the length of the shaft to a transition point (at approximately the location of the lead line for reference number 6), and a straight portion extending along the length of the shaft from the transition point to the proximal end (Fig. 1).

As to claim 2: a radius of curvature of said curved portion of said shaft is approximately constant (Fig. 1).

As to claim 3: said curved portion of said shaft extends over at least two thirds of the entire length of said shaft (Fig. 1).

As to claim 4: a straight portion follows said continuously curved portion, upon which an adapter 17 is arranged for fixing said tube on said shaft.

As to claim 5: said adapter is axially shiftable and lockable on said shaft (by screw 18-19).

As to claim 7: said outer diameter of said shaft is just enough smaller than said inner diameter of said tube, such that an air gap remains between said shaft and said tube (Fig. 1).

As to claim 1: Shimonaka is silent as to the diameter of the shaft. However, Barthel et al. '917 shows an analogous endoscopic intubation system comprising:

As to claim 1: an endotracheal tube 80 having an inner diameter; an endoscope, comprising: a shaft 40 having a proximal 42 and a distal end 41, said shaft having an outer diameter slightly smaller than said inner diameter of said tube, so that said tube can be slid onto said shaft (col. 10, lines 20-22), said shaft being at least partially curved (Fig. 6), wherein said outer diameter of said shaft lies in a range of about 1.5 mm to about 2.5 mm (col. 8, lines 30-34).

It would have been obvious to the artisan to modify Shimonaka by using a shaft having a diameter in the claimed range since Barthel et al. '917 teaches such to be

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preferable (col. 8, lines 30-34) and such would allow the use of the endoscope with smaller diameter endotracheal tubes.

As to claim 11: Although Barthel et al. '917 fails to teach a diameter of 2 mm, inasmuch as the art recognizes shaft diameter as a result-effective variable, it would have been obvious to optimize the diameter of the shaft in order to be able to intubate still smaller passageways. See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

As to claims 8 and 9: Shimonaka fails to show a video camera. However, Barthel et al. shows an analogous endoscopic intubation system comprising:

As to claim 8: a video camera (inherent in the recited "video monitor") arranged at said proximal end of said shaft (col. 6, lines 16-19), through which an enlarged endoscopic image can be obtained.

As to claim 9: said video camera is connected to said endoscope through a coupling 38 and is removable therefrom (col. 6, lines 16-19).

It would have been obvious to the artisan to modify Shimonaka by adding a camera as taught by Barthel et al. '917 since Barthel et al. teaches such to be preferable to a mechanical lens such as the lens 12 used by Shimonaka (col. 6, lines 18-22).

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3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimonaka (JP 55-81317) in view of Barthel et al. (5,921,917) as applied to claim 1 above, further in view of Adair (5,329,940).

Shimonaka fails to show that the adapter comprises a connector for connecting an air supply hose. However, Adair shows an analogous endoscope intubation system comprising:

As to claim 1: an endotracheal tube 12 having an inner diameter; an endoscope, comprising: a shaft 28 having a proximal (top end in Fig. 3) and a distal end (bottom end in Fig. 3) and having an outer diameter slightly smaller than said inner diameter of said tube (Fig. 5), so that said tube can be slid onto said shaft (Fig. 5), said shaft being at least partially curved (Fig. 3), and said shaft having a continuously curved portion extending from said distal end along the length of the shaft to a transition point (at approximately the location of the end of the adapter 48), and a straight portion extending along the length of the shaft from the transition point to the proximal end (see col. 6, lines 44-50: the proximal end of the shaft 28 must be straight in order to fit into the straight passageway 46 of handle 26).

As to claim 6: an adapter 48 arranged on the straight portion of said shaft for fixing said tube on said shaft (col. 8, lines 6-11) and wherein said adapter comprises a connector 50 for connecting an air supply hose 51.

It would have been obvious to the artisan to modify Shimonaka by replacing the disclosed adapter with that taught by Adair since Adair teaches that such would allow oxygen to flow during the intubation procedure, to the benefit of the patient.

### ***Response to Arguments***

4. Applicant argues that "because the [Barthel et al.] '917 patent fails to teach, disclose or suggest a substantially rigid shaft having a diameter from about 1.5 to about 2.5 mm as required by all the claims of the present invention, it cannot render the present claims obvious." However, Shimonaka is relied upon to teach a substantially rigid ("hard") shaft of the claimed shape; Barthel et al. is relied upon to teach the desirability of a diameter in the claimed range. Although Applicant argues that it would be inappropriate to use a rigid shaft in the claimed diameter, there is no evidence that the artisan would see the smaller diameter taught by Barthel et al. as requiring a malleable shaft. Barthel et al. finds the malleable shaft to be "preferable" (col. 7, lines 45-48), but does not teach it to be a necessity for shafts of a given diameter. Barthel et al. chose a malleable shaft in order to allow the surgeon to shape the shaft according to the particular patient (col. 10, lines 22-24) and allow one shaft to be used with endotracheal tubes of any length (col. 7, lines 45-57). See also col. 2, lines 29-38. A malleable shaft has the advantages of adjustability and economy noted by Barthel et al.; a rigid shaft has the advantage of durability and maintenance of optimal shape. These concerns are not directed to diameter. However, the ability of a shaft to simply fit within an endotracheal tube of a given size is totally dependent on its diameter.

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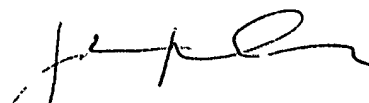
Consequently, it would have been obvious to the artisan to form Shimonaka's rigid shaft of the claimed shape in the diameters taught by Barthel et al. in order to be able to fit within the smaller sized endotracheal tubes.

5. Applicant's remaining arguments with respect to the amended claims have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Mulcahy whose telephone number is (703) 308-3134. The examiner can normally be reached on M-F, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C. M. Dvorak can be reached on (703) 308-0994. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0873.

  
John M. Mulcahy  
Primary Examiner  
Art Unit 3739

John Mulcahy  
August 28, 2003